Many industrial processes in the sugar industry are affected by the abrasive and corrosive properties of sugar cane. Wear is a serious problem and productivity is often affected by interruptions and maintenance.
Stainless steel grade AISI 410 has replaced carbon steel in this sugar refinery in Brazil. Costs have been reduced and product quality enhanced.
The benefit of stainless steel can also be graphically. Initially carbon steel was used for the roller shown above. After two years of use, the steel had reduced from a thickness of 9.5 mm to 5.5 mm (42.1% reduction). By comparison, the 410D stainless roller had an initial thickness of 6.32 mm. After two years of use, this had reduced to 5.98 mm (5.4%).

Location 1 Brazil  
Environment 1 Outdoor  
Product  
Fabrication process 1 Welding  
Grade/surface 1 AISI 410D  
Material thickness/diameter  
Weight  
Competing material 1 Carbon Steel  
Date of Completion 1 2010  
Manufacturer  
Material Supplier 1 APERAM Stainless & Electrical Steel Brazil  
Source of Information 1 APERAM Stainless & Electrical Steel Brazil  
Remarks